

Site 724

Eiffel Tower

A famous Paris landmark and masterpiece of wrought iron technology. It was erected in 1889 for the exhibition celebration the 100th anniversary of the French Revolution. The French engineer, Alexandre Gustave Eiffel based his design for the Eiffel tower on his experience with building high-level railway bridges. From a detailed set of plans the 12,000 metal parts of the tower were all prefabricated and numbered for assembly. The majority of the 2.5 million rivets used were in place before the structure was erected on the site. The gigantic undertaking proceeded so smoothly that not one worker's life was lost by accidents on the scaffolding. The tower was completed except for the elevators in 26 1/2 months.

The Eiffel tower is designed as a cross braced lattice girder that offers minimum wind resistance. The estimated movement of the structure with hurricane force winds is only 8.8 inches. It is constructed from over 7,000 tons of the highest quality wrought iron, resting upon four 25 sure foot masonry piers. The pieces are set in 7 feet of concrete far below ground. The height of the tower is 1056 feet.